

CLAIMS

1. A piling device, including:
  - a support frame having a lower end mounted on a footing;
  - 5 a mechanism for gripping a pile;
  - a mechanism for driving the pile into the ground;
  - the gripping mechanism and the piling mechanism being pivotally connected to and supported by the frame;
  - the pivotal connection of the gripping and driving mechanisms to
  - 10 the frame enabling a pile gripped by the gripping mechanism to be aligned in the desired orientation relative to the frame prior to being driven into the ground.
2. A device according to claim 1, wherein the pivotal connection enables
- 15 angular adjustment of a pile gripped by the gripping mechanism relative to the frame.
3. A device according to claim 1, wherein a pivotal adjustment actuator is provided, the actuator including at least one hydraulically actuated cylinder
- 20 connected between the frame, and the driving and/or gripping mechanisms.
4. A piling device, including:
  - a support frame having a lower end mounted on a footing;
  - 25 a mechanism for gripping a pile;
  - a mechanism for driving the pile into the ground;
  - the gripping mechanism and the piling mechanism being connected to and supported by the frame; wherein
  - the frame includes at least one opening provided in the side thereof
  - 30 to facilitate removal of the device from around a pile partially extending from the ground.

5. A device according to claim 4, wherein the opening is sized to allow a pile partially extending from the ground to pass there through in the event that the frame has to be moved during the piling operation.
- 5 6. A device according to claim 4, wherein the device includes two openings located on opposite sides of the frame.
7. A piling device, including:  
a support frame having a lower end mounted on a footing;  
10 a mechanism for gripping a pile;  
a mechanism for driving the pile into the ground;  
the gripping mechanism and the piling mechanism being connected to and supported by the frame; wherein  
the gripping mechanism is hydraulically operated.
- 15 8. A device according to claim 7, wherein, the gripping force applied by the gripping mechanism to a pile is adjustable.
9. A piling device, including:  
20 a support frame having a lower end mounted on a footing;  
a mechanism for driving a pile into the ground;  
the upper end of the pile driving mechanism is connected to the upper end of the frame and extends downwardly relative to the frame;  
a mechanism for gripping a pile; wherein  
25 the gripping mechanism is connected to and extends downwardly from the lower end of the pile driving mechanism.
10. A piling device according to claim 9, wherein the driving mechanism includes a driving frame and hydraulic cylinders extendable downwardly  
30 relative to the driving frame, wherein the lower end of the cylinders are connected to the gripping mechanism.

11. A piling device, including:  
a support frame having a lower end mounted on a footing;  
a mechanism for gripping a pile;  
a mechanism for driving the pile into the ground;  
5 the gripping mechanism and the piling mechanism being connected to and supported by the frame;  
the footing including ground mounted footings and respective frame mounted footings;  
the frame mounted footings being movably mounted on the  
10 respective ground mounted footings; wherein  
the footing enables movement of the piling device.
12. A device according to claim 11, wherein the frame mounted footings are movably mounted on the respective ground mounted footings by the  
15 inclusion of roller bearing assemblies between the frame mounted footings and ground mounted footings.
13. A device according to claim 12, wherein the bearings are connected to the  
20 frame mounted footings and/or ground mounted footings.
14. A device according to claim 11, wherein vertically and/or horizontally orientated hydraulic cylinders are connected to and extend between each pair of frame and ground mounted footings, to facilitate movement of the  
25 device in the vertical and/or horizontal directions relative to the ground and ground mounted footings.
15. A device according to claim 11, including counterweights mounted on the frame to prevent the frame from moving during the piling operation.
- 30 16. A device according to claim 15, wherein the device can be moved with the counterweights mounted on the frame.

- 17. A piling device substantially as herein described and illustrated.**